P.09

PRICE HENEVELD

Applicant

Ernest K. Kenneway

Appln. No.

10/041,643

Page

JAN-06-2004

9

## **REMARKS**

In the present Office Action, claim 20 was objected to under 37 C.F.R. §1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim; claims 4, 5, 16, 17, 21 and 22 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for including the term "substantially;" claims 6 and 9 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for containing the limitation of a "second" plurality of objects; claims 1, 3, 4, 13, 15, 16, 18, 20 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,405,015 (hereinafter Bhatia); and claims 2, 7, 8, 10-12, 14, 19 and 23-29 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. Applicant wishes to express appreciation to the Examiner for the indication of allowable subject matter. However, for the reasons further set forth below, Applicant submits that all of claims 1-29 are now allowable.

Applicant has amended claim 20 to address the 37 C.F.R. §1.75(c) rejection and, as such, submits that this rejection is now moot. While Applicant does not agree that inclusion of the term "substantially" makes claims 4, 5, 16, 17, 21 and 22 indefinite, Applicant has nevertheless amended claims 4, 5, 16, 17, 21 and 22 to remove the term "substantially" and, as such, submit that these rejections are now also moot.

With respect to the 35 U.S.C. §112, second paragraph, rejection of claims 6 and 9, Applicant submits that the claims are definite and do not fail to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More specifically, with reference to Fig. 2, and the discussion in the specification thereof, cameras 112 and 114 inspect ends of objects carried by cup conveyor 203. An intermediate rejection valve 124 may be utilized to remove a defective object from the cup conveyor 203 and place it in a rejection bin 206. Thus, the cup conveyor 203 may carry a number of objects, i.e., a second plurality of objects, which is not the same as a first plurality of objects delivered to a feed conveyor 210 that includes a barrier, for example, wires 212A and 212B, placed across

P 10



Applicant

Ernest K. Kenneway

Appln. No.

10/041,643

Page

10

the top surface of the feed conveyor 210. While the second plurality of objects may be the same as the first plurality of objects, they are not necessarily the same and, as such, the limitation of a second plurality of objects is definite and does particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

With respect to the rejections of claims 1, 3, 4, 13, 15, 16, 18, 20 and 21 over Bhatia, Applicant notes that Bhatia is directed to a system for seeking and sensing a specific area on an article in a stream of articles of manufacture that are moving at a predetermined speed. The articles (i.e., bottles) are moving along a conveyor belt and a bottle to be inspected is accelerated relative to the predetermined speed of the other bottles on the conveyor belt. As a bottle approaches a sensing station, the bottle is separated from the other bottles due to its acceleration. The bottle is then halted at the sensing station and is manipulated, if necessary, to locate and present a selected area on the halted bottle to a sensing device. When the article is halted and the selected area is in view of the sensing device, the article is sensed and information corresponding to the selected area is obtained. After being sensed, the article is again accelerated and resumes its previous speed, thereby maintaining the throughput of the system.

As is disclosed in Bhatia at column 6, a motor 40 is arranged to rotate a drive belt 42 that is disposed and tensioned to contact the bottle 24a. Accordingly, to pull the bottle into the star wheel 44 arms and ultimately the sensing station 26, the motor 40 is controlled to operate the drive belt 42. The operation of the drive belt 42 assists the bottle into the arms of the star wheel 44, and the wheel 44 continues its indexing movement in conjunction with the drive belt 42 to guide the bottle 24a into the sensing position (see Fig. 1). As is disclosed, the movement of the star wheel 44 then ceases for the next 270 degrees of the revolution of lead screw 30, during which time the sensing operations are performed before the next bottle arrives. After sensing, the bottle 24a is removed from the sensing station 26 in a similar manner by the operation of the drive belt 42 and star wheel 44, which feeds the bottle 24a into the lead screw 30 in the direction of the exit side 34. Applicant notes that the drive belt 42 may be

Applicant

Ernest K. Kenneway

Appln. No.

10/041,643

Page

11

controllably operated to manipulate, i.e., rotate, the bottle 24a for reading while within the sensing station 26.

However, while Bhatia discloses a system that is capable of causing a plurality of objects to rotate about an object axis, Bhatia does not teach or suggest placing a barrier, that defines a boundary of inspection area, across a top surface of the feed conveyor. Further, Bhatia does not teach or suggest a system that implements a barrier that redirects a plurality of objects that are carried by a feed conveyor. Additionally, while the Bhatia feed conveyor moves a plurality of objects into an inspection area, it does not move the plurality of objects through the inspection area.

Applicant notes the Office Action specifically states that "Bhatia does not disclose that the barrier redirects the objects, however, this feature appears to be a matter of design choice. It would be obvious to one of ordinary skill in the art that the conveyor and barrier could be modified so as to send the objects in a skewed direction instead of a continuing along the same path." However, Applicant submits that Bhatia does not teach or suggest using a barrier that redirects the objects in conjunction with a feed conveyor to rotate the objects through an inspection area such that images of the objects can be captured. As discussed above, Bhatia merely discloses a sensing station 26 that independently rotates objects, if needed. Furthermore, a "design choice" rejection without a motivation or suggestion for making such a change can only be made if: (1) the change has no function (i.e., merely for aesthetic appearances), In re Chu, 36 U.S.P.Q.2d 1089 (Fed. Cir. 1995); or (2) the change is between two equivalent items. See, e.g., Ex parte Crissy, Spano, and Wolff, 201 U.S.P.Q. 689 (Bd. Pat. App. & Int. 1976). As such, Applicant submits that independent claims 1, 13 and 18 are allowable over Bhatia.

Applicant further submits that claims 2-12, 14-17 and 19-29 depend upon allowable claims and are also allowable for at least this reason.

616 957 8196

P.12

Applicant

Ernest K. Kenneway

Appln. No.

10/041,643

Page

12

## CONCLUSION

For all of the foregoing reasons, Applicant respectfully submits that claims 1-29 are now allowable. If the Examiner has any questions or comments with respect to this reply, the Examiner is invited to contact the undersigned at (616) 949-9610.

Respectfully submitted,

ERNEST K. KENNEWAY

By:

PRICE, HENEVELD, COOPER,

**DEWITT & LITTON, LLP** 

<u>01-06-04</u> Date

Michael R. Long

Registration No. 42 808

695 Kenmoor SE P.O. Box 2567

Grand Rapids, Michigan 49501-2567

616/949-9610

MRL/saw